

patient leaves the hospital the efficiency and satisfaction of the artificial limb must be certified to by the patient, the maker, the surgeon, and the commanding officer.

Three weeks before it is thought that a patient will be ready to leave, an application for discharge and pension is sent in, so that his pension is available when he leaves the hospital. At present a man who is totally disabled receives a minimum weekly pension of 27 shillings, 6 pence and an additional 5 shillings weekly for the first child, 4 shillings, 2 pence for the second and 3 shillings, 4 pence for the third. Pensions in cases of partial disability are based upon the degree of the disability, and a corresponding percentage of the total disability pension is awarded.

The blind are treated in England much as in France, but the number of cases seem to have been much less, and a more satisfactory follow-up system has been possible.

Such a brief abstract as this cannot do more than suggest the great amount of detailed information contained in the original report which it is to be hoped will soon be made available by publication.

One further point which is repeatedly emphasized in this report is the importance of the relation which the whole problem of the reëducation of the disabled bears to the labor situation. The men must be taught trades in which they can obtain employment, nor must these trades be allowed to become too crowded and conditions disturbed. Labor and trade unions must be considered and a representative of these unions should be on every committee concerned with such problems. Experience has taught that it is only by correlating all phases of the question and by full coöperation under a central authority that the best results have been obtained.

O. H. P. P.

**Disinfection of Drinking Water.**—DAKIN and DUNHAM (*British Med. Jour.*, May 26, 1917) state that bleaching powder or similar hypochlorite or chlorine preparation has been used with the greatest success for the sterilization of relatively large volumes of drinking water when troops are practically stationary. The problem of sterilizing small individual quantities of water, such as are needed by cavalry or rapidly moving troops, is much more difficult. For such purposes the instability of small tablets containing the minute quantity of active disinfectant required led the writers to make a number of experiments. The first experiment was made with chloramine-T. It was unsatisfactory. If waters were heavily contaminated and hard and alkaline the concentration required was too great, though this could be reduced by use of citric, tartaric, and other organic acids. The next attempt was with preformed toluene-sulphondichloramines, and first results were encouraging; but when put up in tablet form too much time was required for solution to bring about prompt sterilization. Greater solubility and stability were obtained with p-sulphondichloraminobenzoic acid. This can be prepared from cheap, readily available material. The formula is  $\text{Cl}_2\text{N}.\text{O}_2\text{S}.\text{C}_6\text{H}_4.\text{COOH}$ . The presence of the  $\text{COOH}$  group confers a slight but definite solubility in water, which is increased by dispensing it with alkaline salts, such as sodium carbonate, sodium bicarbonate, borax, etc. The writers propose for convenience that the designation "halazone" be used for this substance. Tests of the efficacy of this "halazone," both in powder and tablet form, were

made, using tap water and *B. coli*; hard water and feces suspension; hard water and 10 per cent. city sewage; tap water and 5 per cent. city sewage; hard water and *B. coli*. The "halazone" was in varying degrees of concentration, as 1 to 250,000, 1 to 500,000, 1 to 1,000,000. The ordinary routine was to take 5 to 10 drops of the treated water, place on agar to count surviving organisms, and use suitable controls. The experiments appeared to show that in a concentration of 1 to 300,000 an ordinarily heavily contaminated water was sterilized in thirty minutes. This concentration could be relied on to remove coli, typhoid, or cholera organisms. A convenient formula for tablets weighing 100 to 105 mg. is: sulphonchloraminobenzoic acid, 4 per cent.; sodium carbonate, 4 per cent. (or dried borax 8 per cent.); pure sodium chloride, 92 per cent. Grind the acid with dry salt and then add the sodium carbonate. Pass mixture through a 40-mesh sieve. No lubricant or other addition is necessary. Tablets must be stored in small amber-colored bottles. One tablet prepared as above sterilizes 1 liter of moderately contaminated water. If contamination is excessive, use two tablets to 1 liter or quart. Sufficient time has not yet elapsed for final reports on the stability of the tablets, but under ordinary conditions no decomposition was noted after two months. Bright sunlight acting on tablets in clear glass bottles did cause decomposition. The estimated cost in England of disinfecting water by the use of "halazone" is 2 cents per 100 gallons of water. M. J. R.

**Note on the Prevention of Pediculosis.**—GUNN (*British Med. Jour.*, May 5, 1917) gives very favorable reports on the use of thin undershirts made of muslin (so cheap that the original intention was to throw them away after using once) soaked in the following solution: naphthalene and sulphur, each, 1½ ounces; benzol or gasoline, 1 gallon. No inconvenience results from the use of undergarments so treated. The effect on pediculi is not immediate. The writer quotes from a letter from France in which it was stated that 200 dead pediculi were counted on a shirt that had been treated with the above solution. The solution has been applied under a plaster cast without irritation to the skin.

M. J. R.

**Vincent's Angina.**—CAMPBELL and DYAS (*Jour. Am. Med. Assn.*, June 2, 1917, lxviii, No. 22, 1596) state that Vincent's angina was formerly comparatively rare. It seems to have first become prevalent in France, where it was known as trench mouth. Now it is so prevalent that it may be classed as among the commonest of disabilities among the troops. Usually the condition is not such as to confine the patient to bed, but the depression and inability to masticate properly cause a serious lowering in efficiency. Vincent's angina is an infectious disease of the mucous membrane of the mouth, throat, bronchi, and prepuce. By far the most frequent site of infection is the mouth and throat. Next in frequency are the bronchial cases. The preputial cases are rare. The largest percentage of cases are of the tonsillar type. Characteristic symptoms of this type are a yellowish-gray membrane, fetid breath, some pain on swallowing, and enlarged and tender cervical lymph glands. Absence of headache, myalgia, and marked prostration distinguish it from diphtheria and acute tonsillitis.